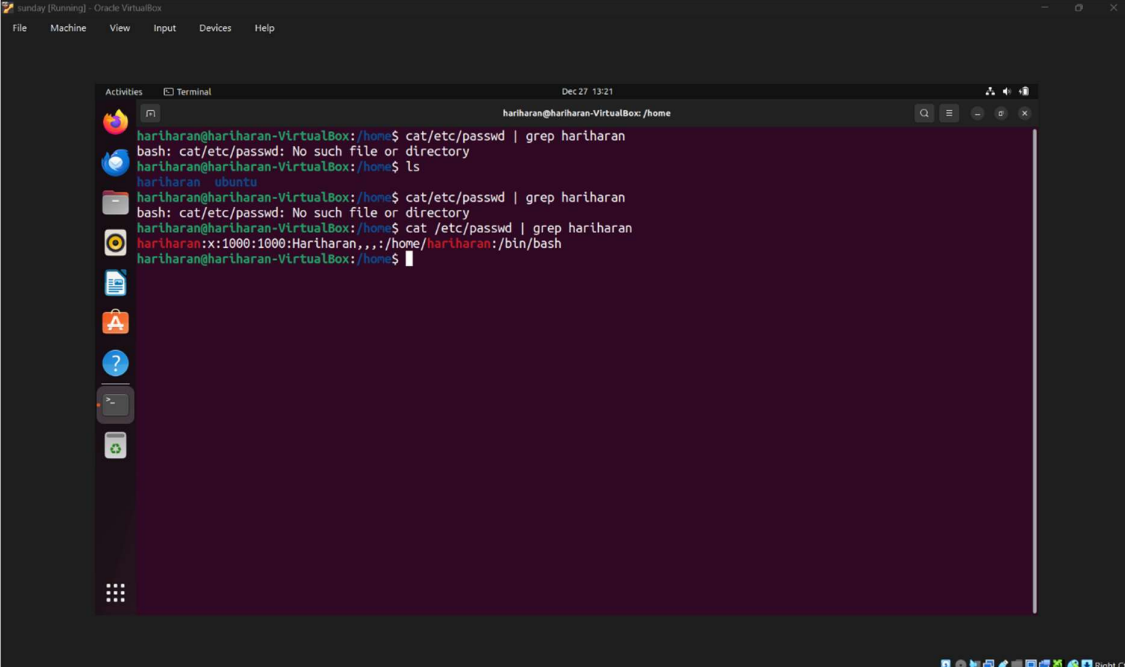


LINUX ADMINISTRATOR COMMANDS AND FILE PERMISSION COMMANDS

- Using “Cat/etc/passwd | grep” command to identify the single user.



The screenshot shows a terminal window titled "hartharan@hartharan-VirtualBox: /home". The terminal displays the following commands and output:

```
hartharan@hartharan-VirtualBox:/home$ cat/etc/passwd | grep hartharan
bash: cat/etc/passwd: No such file or directory
hartharan@hartharan-VirtualBox:/home$ ls
hartharan  ubuntu
hartharan@hartharan-VirtualBox:/home$ cat/etc/passwd | grep hartharan
bash: cat/etc/passwd: No such file or directory
hartharan@hartharan-VirtualBox:/home$ cat /etc/passwd | grep hartharan
hartharan:x:1000:1000:Hartharan,,,:/home/hartharan:/bin/bash
hartharan@hartharan-VirtualBox:/home$
```

- Using “Cat/etc/passwd to identify the all user.

```
hariharan@hariharan-VirtualBox: /home$ cat/etc/passwd | grep hariharan
hariharan:x:1000:1000:Hariharan,,,:/home/hariharan:/bin/bash
hariharan@hariharan-VirtualBox: /home$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mail list Manager:/var/list:/usr/sbin/nologin
ircd:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105:nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
syslog:x:104:111:/home/syslog:/usr/sbin/nologin
apt:x:105:65534:/nonexistent:/usr/sbin/nologin
tpm:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:107:116:run/uuidd:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
```

- Using “Passwd” command to create or update password.

```
hariharan@hariharan-VirtualBox: /home$ passwd hariharan
Changing password for hariharan.
Current password:
New password:
Retype new password:
passwd: password updated successfully
hariharan@hariharan-VirtualBox: /home$
```

- Using “Cat/etc/group | grep” command to create a group of developer.

```
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep jarvis
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep jarvis
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep jarvis
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep users
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep hariharan
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep hari
hariharan@hariharan-VirtualBox: /home$ cat /etc/ os-release
cat: /etc/: Is a directory
cat: os-release: No such file or directory
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep users
hariharan@hariharan-VirtualBox: /home$
```

- Using “Cat/etc/os-release” command to os specs.

```
hariharan@hariharan-VirtualBox: /home$ cat /etc/ os-release
cat: /etc/: Is a directory
cat: os-release: No such file or directory
hariharan@hariharan-VirtualBox: /home$ cat /etc/group | grep users
hariharan@hariharan-VirtualBox: /home$ cat /etc/os-release
NAME="Ubuntu"
VERSION="22.04"
VERSION_ID="22.04"
VERSION_CODENAME=jammy
ID=ubuntu
ID_LIKE=debian
HOME_URL="https://www.ubuntu.com/"
SUPPORT_URL="https://help.ubuntu.com/"
BUG_REPORT_URL="https://bugs.launchpad.net/ubuntu/"
PRIVACY_POLICY_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"
ubuntu@hariharan-VirtualBox: /home$
```

- Using “chmod ug+rw file2” command and “ls -l” command to use read and write of an user and group of file 2.

```
hariharan@hariharan-VirtualBox: ~/hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ pwd
~/hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ cd home
cd: home: No such file or directory
hariharan@hariharan-VirtualBox: ~/hariharan$ mkdir hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ mv file1 hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
Downloads  file3  file.txt  hariharan  Pictures  snap  Videos
Public    file2  file4  file.txt.save  Music  Public  Templates
hariharan@hariharan-VirtualBox: ~/hariharan$ mv file2 hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
Downloads  file3  file4  file.txt  file.txt.save  hariharan  Music  Pictures  Public  snap  Templates  Videos
hariharan@hariharan-VirtualBox: ~/hariharan$ mv file3 file4 hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
Downloads  file.txt  file.txt.save  hariharan  Music  Pictures  Public  snap  Templates  Videos
hariharan@hariharan-VirtualBox: ~/hariharan$ cd hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
file2  file3  file4
hariharan@hariharan-VirtualBox: ~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file2
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file3
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox: ~/hariharan$ chmod ug:rw file2
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
file2  file3  file4
hariharan@hariharan-VirtualBox: ~/hariharan$
```

- Using “chmod u-r file2” and “ls -l” command to permission denied of user,groups and others.

```
hariharan@hariharan-VirtualBox: ~/hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
Downloads  file3  file.txt  hariharan  Pictures  snap  Videos
Public    file2  file4  file.txt.save  Music  Public  Templates
hariharan@hariharan-VirtualBox: ~/hariharan$ mv file2 hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
Downloads  file3  file4  file.txt  file.txt.save  hariharan  Music  Pictures  Public  snap  Templates  Videos
hariharan@hariharan-VirtualBox: ~/hariharan$ mv file3 file4 hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
Downloads  file.txt  file.txt.save  hariharan  Music  Pictures  Public  snap  Templates  Videos
hariharan@hariharan-VirtualBox: ~/hariharan$ cd hariharan
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
file2  file3  file4
hariharan@hariharan-VirtualBox: ~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file2
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file3
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox: ~/hariharan$ chmod ug:rw file2
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
file2  file3  file4
hariharan@hariharan-VirtualBox: ~/hariharan$ chmod u-r file2
hariharan@hariharan-VirtualBox: ~/hariharan$ ls
file1  file2  file3  file4
hariharan@hariharan-VirtualBox: ~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file2
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file3
-rw-rw-r-- 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox: ~/hariharan$
```

- Using “chmod 777 file1 file2 file3 file4” command and “ls -l” command to read,write and execute of an user,group and others.

```
hariharan@hariharan-VirtualBox: ~/hariharan
hariharan@hariharan-VirtualBox:~/hariharan$ touch file2
hariharan@hariharan-VirtualBox:~/hariharan$ touch file3
hariharan@hariharan-VirtualBox:~/hariharan$ touch file4
hariharan@hariharan-VirtualBox:~/hariharan$ chmod ugo+rw file2
hariharan@hariharan-VirtualBox:~/hariharan$ ls
file2  file3  file4
hariharan@hariharan-VirtualBox:~/hariharan$ chmod u+r file2
hariharan@hariharan-VirtualBox:~/hariharan$ ls
file2  file3  file4
hariharan@hariharan-VirtualBox:~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file2
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file3
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox:~/hariharan$ chmod ugo+777 file2
chmod: invalid mode: 'ugo+777'
hariharan@hariharan-VirtualBox:~/hariharan$ chmod --help for more information.
hariharan@hariharan-VirtualBox:~/hariharan$ chmod 777 field1 field2 field3 field4
chmod: cannot access 'field1': No such file or directory
chmod: cannot access 'field2': No such file or directory
chmod: cannot access 'field3': No such file or directory
chmod: cannot access 'field4': No such file or directory
hariharan@hariharan-VirtualBox:~/hariharan$ chmod 777 file1 file2 file3 file4
hariharan@hariharan-VirtualBox:~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file2
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file3
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox:~/hariharan$
```

- Using “chmod 457 file1 file2 file3 file4” command and “ls -l” command to read,write and execute of an user,group and others.

```
hariharan@hariharan-VirtualBox: ~/hariharan
hariharan@hariharan-VirtualBox:~/hariharan$ touch file2
hariharan@hariharan-VirtualBox:~/hariharan$ touch file3
hariharan@hariharan-VirtualBox:~/hariharan$ touch file4
hariharan@hariharan-VirtualBox:~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file2
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file3
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox:~/hariharan$ chmod ugo+777 file2
chmod: invalid mode: 'ugo+777'
hariharan@hariharan-VirtualBox:~/hariharan$ chmod --help for more information.
hariharan@hariharan-VirtualBox:~/hariharan$ chmod 777 field1 field2 field3 field4
chmod: cannot access 'field1': No such file or directory
chmod: cannot access 'field2': No such file or directory
chmod: cannot access 'field3': No such file or directory
chmod: cannot access 'field4': No such file or directory
hariharan@hariharan-VirtualBox:~/hariharan$ chmod 777 file1 file2 file3 file4
hariharan@hariharan-VirtualBox:~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file2
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file3
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox:~/hariharan$ chmod 457 file1 file2 file3 file4
hariharan@hariharan-VirtualBox:~/hariharan$ ls -l
total 0
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file1
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file2
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file3
-rwxrwxrwx 1 hariharan hariharan 0 Dec 27 13:56 file4
hariharan@hariharan-VirtualBox:~/hariharan$
```

- Using “chmod 000 file1 file2 file3 file4” command and “ls -l” command to empty of an user,group and others.


```
harisharan@harisharan-VirtualBox: ~/harisharan
$ chmod ugo+777 file2
chmod: invalid mode: 'ugo+777'
Try 'chmod --help' for more information.
harisharan@harisharan-VirtualBox:~/harisharan$ chmod 777 field1 field2 field3 field4
chmod: cannot access 'field1': No such file or directory
chmod: cannot access 'field2': No such file or directory
chmod: cannot access 'field3': No such file or directory
chmod: cannot access 'field4': No such file or directory
harisharan@harisharan-VirtualBox:~/harisharan$ chmod 777 file1 file2 file3 file4
harisharan@harisharan-VirtualBox:~/harisharan$ ls -l
total 0
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file1
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file2
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file3
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file4
harisharan@harisharan-VirtualBox:~/harisharan$ chmod 457 file1 file2 file3 file4
harisharan@harisharan-VirtualBox:~/harisharan$ ls -l
total 0
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file1
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file2
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file3
-rwxrwx 1 harisharan harisharan 0 Dec 27 13:56 file4
harisharan@harisharan-VirtualBox:~/harisharan$ chmod 000 file1 file2 file3 file4
harisharan@harisharan-VirtualBox:~/harisharan$ ls -l
total 0
----- 1 harisharan harisharan 0 Dec 27 13:56 file1
----- 1 harisharan harisharan 0 Dec 27 13:56 file2
----- 1 harisharan harisharan 0 Dec 27 13:56 file3
----- 1 harisharan harisharan 0 Dec 27 13:56 file4
harisharan@harisharan-VirtualBox:~/harisharan$
```